



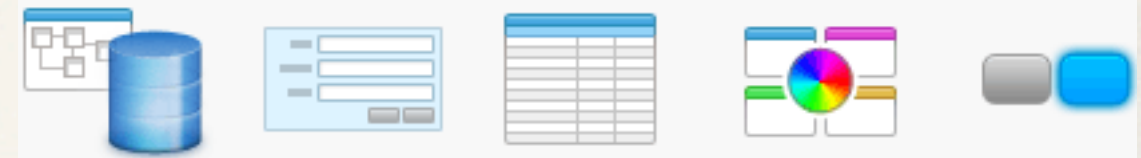
ExtJS 4.0

Sencha Touch

ExtJS 4.0

JavaScript Framework for building rich internet applications

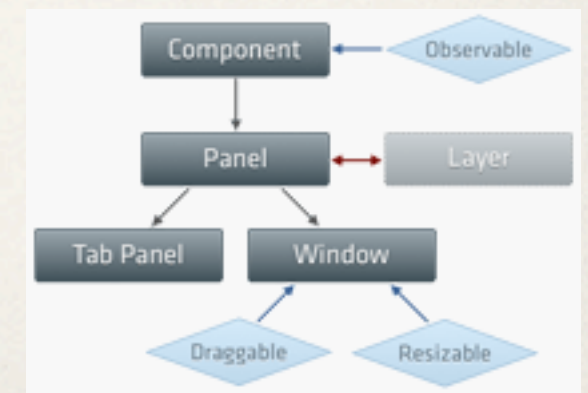
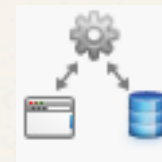
- Writes and uses HTML5 compliant page (with fallbacks for older browsers)
- Has an ENORMOUS library of widgets, inputs, components, layouts, charts and graphs
- Very strong MVC framework with clean component definitions



<http://www.sencha.com/products/extjs/examples/>

<http://dev.sencha.com/deploy/ext-4.0.7-gpl/examples/themes/index.html>

<http://dev.sencha.com/deploy/ext-4.0.7-gpl/examples/charts/FormDashboard.html>



Example apps:

<http://www.sencha.com/apps/>

ExtJS 4.0

JavaScript Framework for building rich
internet applications

- Interpreted instead of compiled
- Templates / XTemplates
- Additional javascript 'extensions'
(such as Ext.require, Ext.define, Ext.extend,
or Ext.Array, Ext.Object)
- XTypes (custom components / classes)
- Containers / Layouts

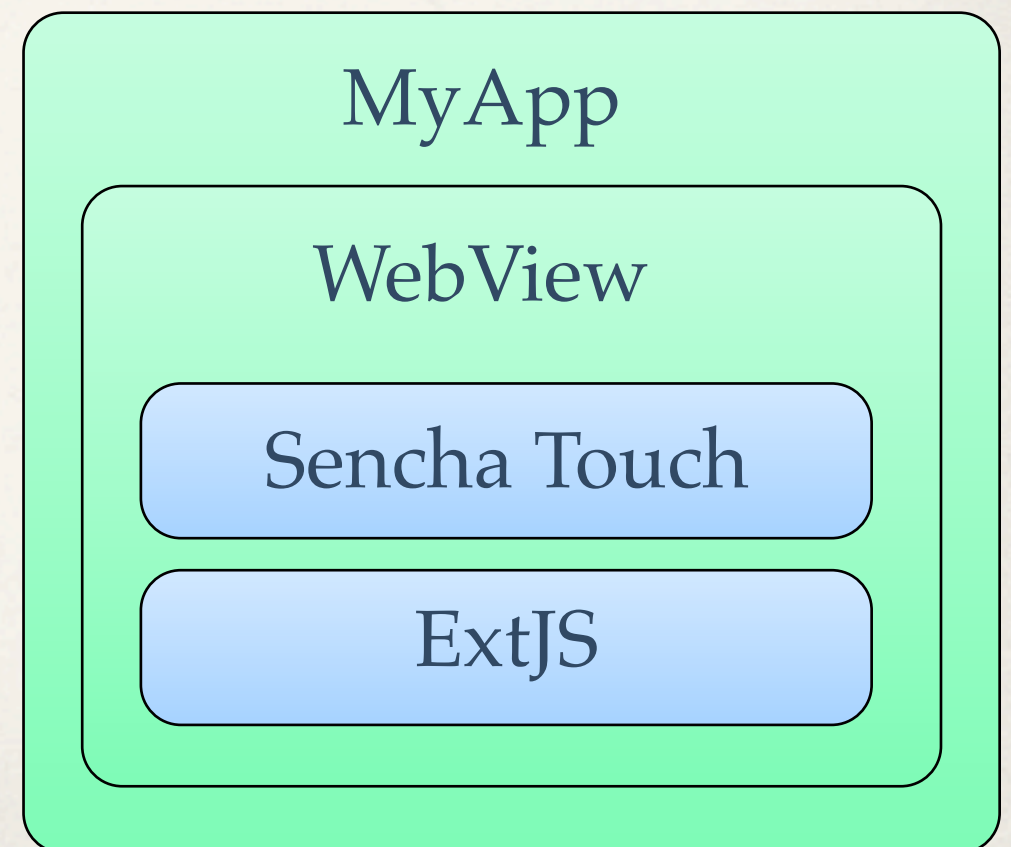
Sencha Touch

Mobile Application Framework

Sencha Touch is a library
'built on'* ExtJS

To run in a Mobile Device
it must run in a native WebView
(such as a browser or container)

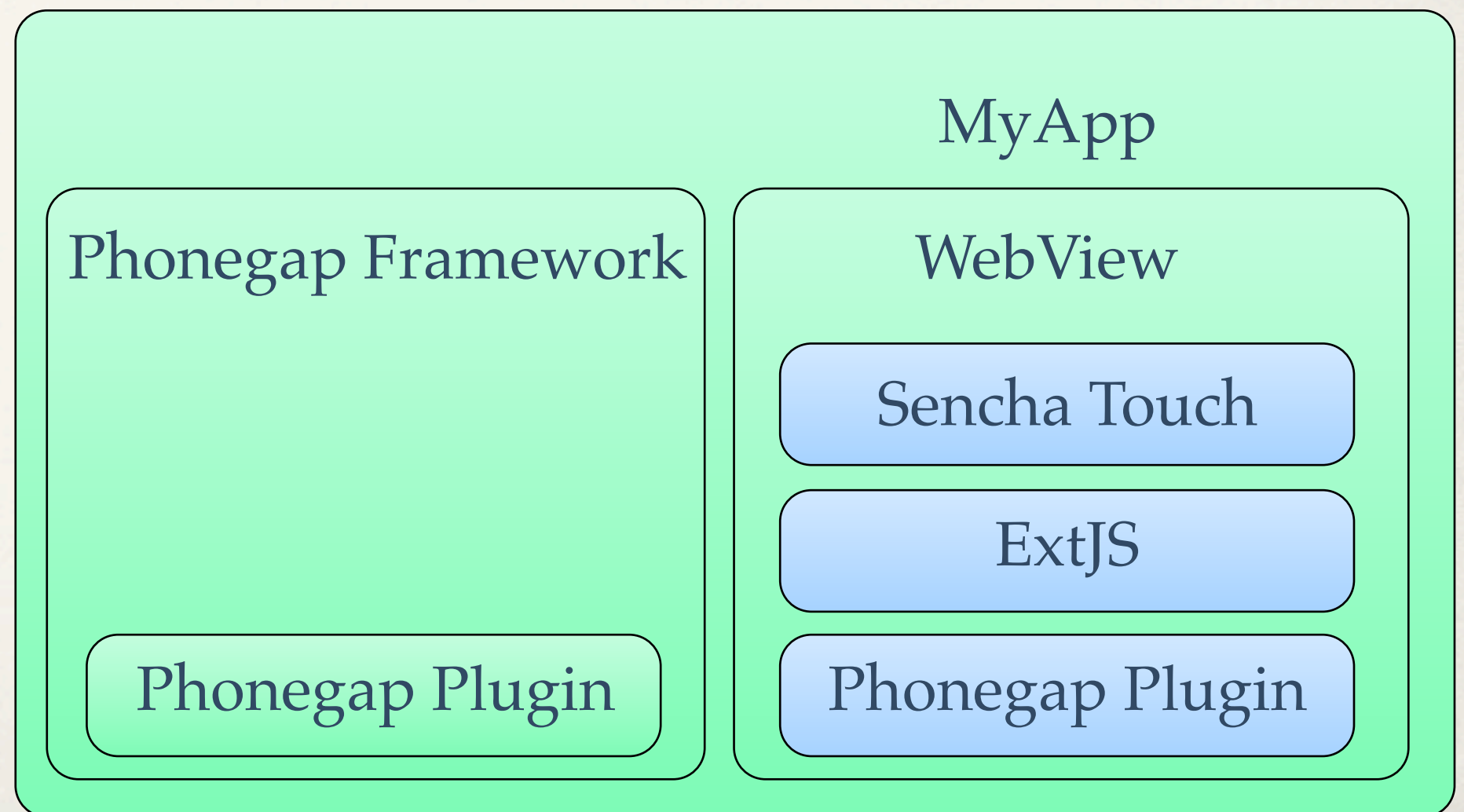
A custom app
simply contains a Web View
which shows the application



Sencha Touch

Mobile Application Framework

Using Phonegap / Cordova / Sencha
simply provides native code
that listens and dispatches javascript to the WebView



Sencha Touch

Yo World, whassup?

What you'll need:

- Download Sencha Touch 2 SDK

<http://www.sencha.com/products/touch/download>

- Download Sencha SDK Tools

(only needed for phonegap like wrapping)

<http://www.sencha.com/products/sdk-tools>

- The docs

<http://docs.sencha.com/ext-js/4-0/>

<http://docs.sencha.com/touch/2-0/>

Sencha Touch

Yo World, whassup?

```
proth-ltm:sencha-touch-2.0.0-gpl proth$ ./command/sencha
Sencha Command v2.0.0 for Sencha Touch 2
Copyright (c) 2012 Sencha Inc.
```

Usage:

```
sencha [module] [action] [arguments...]
```

Example:

```
sencha fs minify --from app.js --to app-minified.js --compressor closurecompiler
```

Available modules:

app	Resolve application dependencies and build for production
fs	A set of useful utility actions to work with files. Most commonly used actions are: concat, minify, delta
manifest	Extract class metadata
test	Unit testing using Jasmine
generate	Automates the generation of projects and files
package	Packages a Sencha Touch 2 application for native app stores

For more information on a specific module, simply type:

```
sencha [module]
```

For example:

```
sencha fs
```

For more information on a specific action of a specific module, simply type:

```
sencha [module] [action]
```

For example:

```
sencha fs minify
```


Sencha Touch

Yo World, whassup?

```
proth-ltm:sencha-touch-2.0.0-gpl proth$ ./command/sencha generate

Usage:
  sencha generate [action] [arguments...]

Description:
  Inc.
  Automates the generation of projects and files

Available actions: (*) denotes required parameter
  app      Generate a new project with the recommended structure
            -n, --name      * The namespace of the application to create. This will be used as the prefix for all your classes
            -p, --path      * The directory path to generate this application to.
            -l, --library    The library's build to develop your application with, either 'core' or 'all'. Defaults to 'core'.
                             + Use 'all' if your application make use of almost every class available in the whole framework
                             + Use 'core' if your application only make use of a portion of the framework.
            es:             Resolve application dependencies and build for deployment. When you deploy the application, it only includes exactly what it needs.
                             A set of useful utility actions to work with files. Most commonly used actions are: concat, minify, delta
  model     Generate a Model for an existing project
            -n, --name      * The name of the Model to create
            -f, --fields    * The set of fields to add to the Model
  controller Generate a Controller for an existing project
            -n, --name      * The name of the Controller to create
  profile   Generate a Profile for an existing project
            -n, --name      * The name of the Profile to create

For more information on a specific action, simply type:
  sencha generate [action]

For example:
  sencha generate app
```


Sencha Touch

Yo World, whassup?

```
broth-ltm:sencha-touch-2.0.0-gpl proth$ ./command/sencha generate app --name senchaTalk --path ../senchaTalk/code/
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/.senchasdk
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/index.html
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/app.js
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/packager.json
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/app.json
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/app/view/Main.js
[INFO] Copied dir: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/src
[INFO] Copied dir: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/resources
[INFO] Copied dir: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/resources/icons
[INFO] Copied dir: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/resources/loading
[INFO] Copied dir: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/command
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/microloader/development.js
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/microloader/testing.js
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/microloader/production.js
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/version.txt
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/sencha-touch.js
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/sdk/sencha-touch-all.js
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/resources/sass/app.scss
[INFO] Created file /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/resources/sass/config.rb
[INFO] Copied file: /Users/proth/Documents/_synch/personal/documentation/sencha/senchaTalk/code/resources/css/app.css
```


Sencha Touch

Yo World, whassup?

```
Ext.define("senchaTalk.view.Main", {
    extend: 'Ext.tab.Panel',
    requires: ['Ext.TitleBar'],

    config: {
        tabBarPosition: 'bottom',

        items: [{
            title: 'Welcome',
            iconCls: 'home',
            xtype: 'panel',

            fullscreen: true,
            html: [
                '',
                '<h1>Welcome to Sencha Touch</h1>',
                "<p>You're creating the Getting Started app. This demonstrates how ",
                "to use tabs, lists and forms to create a simple app</p>",
                '<h2>Sencha Touch (2.0.0)</h2>'
            ].join(""),
            styleHtmlContent: true,
            scrollable: true
        }]
    }
});
```



Welcome to Sencha Touch

You're creating the Getting Started app. This demonstrates how to use tabs, lists and forms to create a simple app



Welcome



Contact Me

Sencha Touch

Yo World, whassup?

```
/**
 * Main viewpoint for the application
 * @author Model Metrics
 */
/*global Ext */

Ext.define("senchaTalk.view.Main", {
    extend: 'Ext.tab.Panel',
    requires: ['Ext.TitleBar'],

    config: {
        tabBarPosition: 'bottom',

        items: [
            {
                title: 'Welcome',
                iconCls: 'home',
                xtype: 'Home'
            }
        ]
    }
});
```

```
/**
 * SenchaTalk Home screen
 * @author Paul Roth
 */
/*global Ext */

Ext.define('senchaTalk.view.Home', {
    extend: 'Ext.Panel',
    xtype: 'Home',

    config: {
        fullscreen: true,
        html: [
            '',
            '<h1>Welcome to Sencha Touch</h1>',
            "<p>You're creating the Getting Started app. This demonstrates how ",
            "to use tabs, lists and forms to create a simple app</p>",
            '<h2>Sencha Touch (2.0.0)</h2>'
        ].join(""),
        styleHtmlContent: true,
        scrollable: true
    }
});
```



Welcome to Sencha Touch

You're creating the Getting Started app. This demonstrates how to use tabs, lists and forms to create a simple app



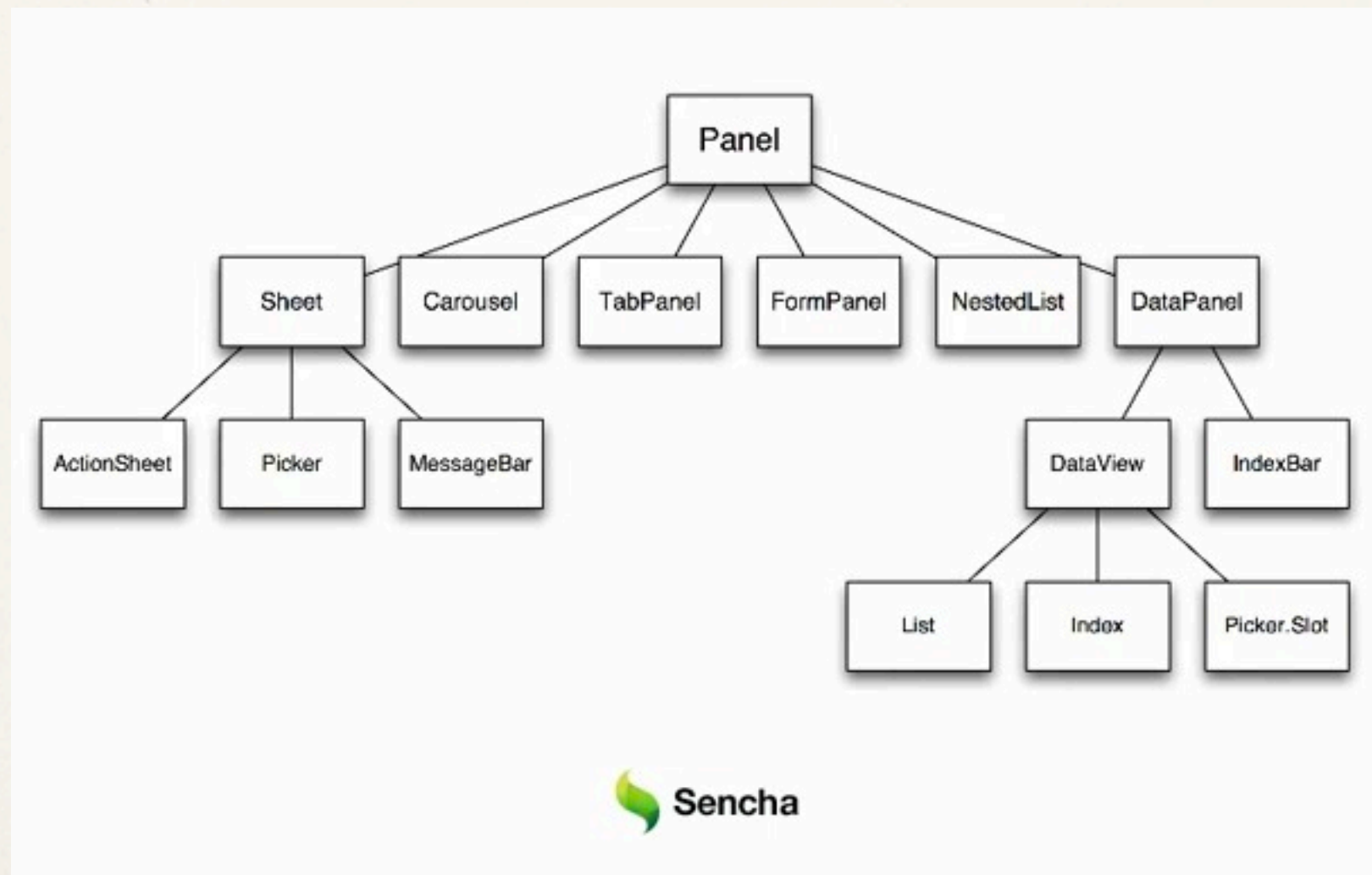
Welcome



Contact Me

Sencha Touch

Yo World, whassup?



Sencha Touch

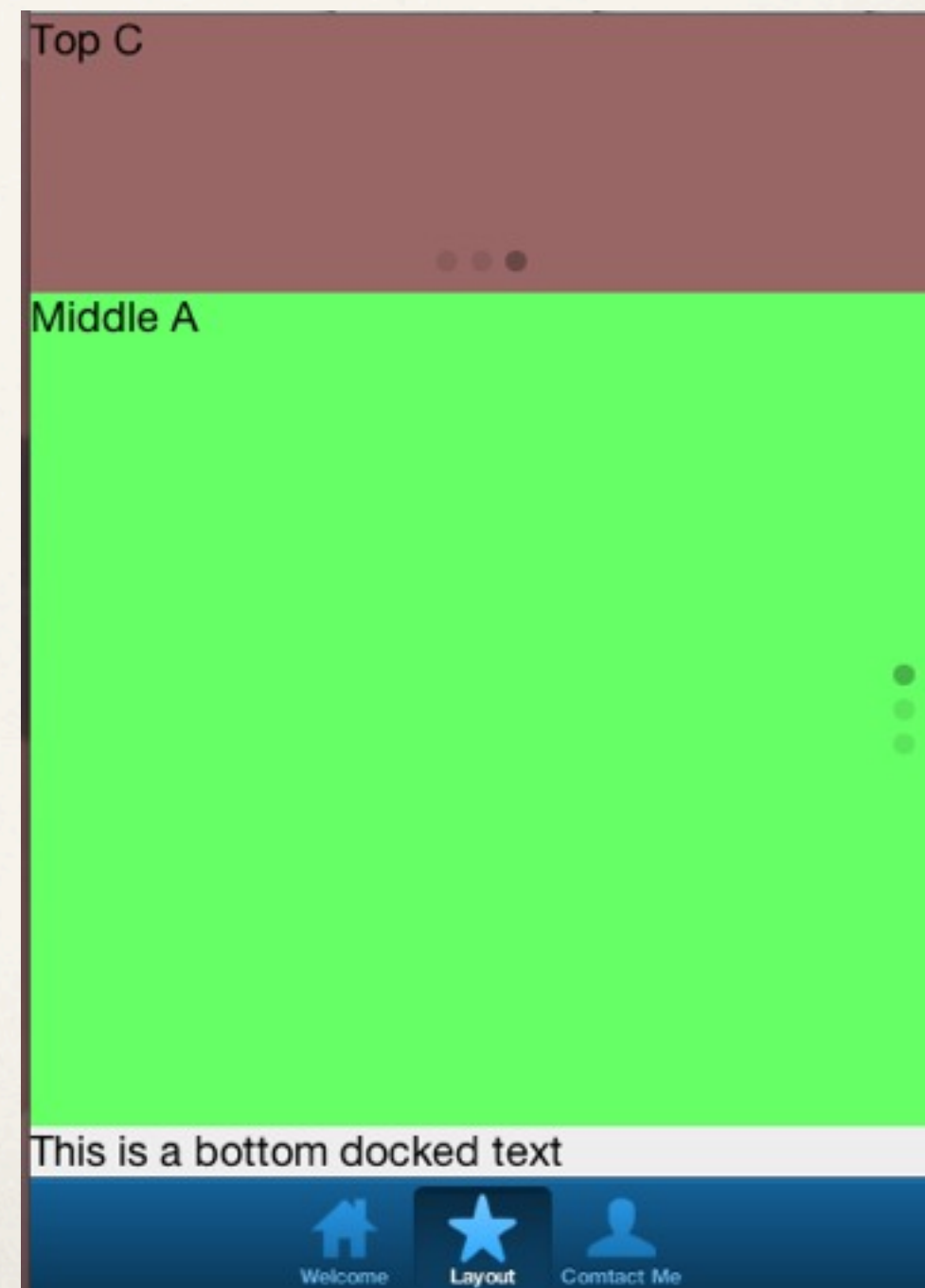
Layout Example

```
Ext.define('senchaTalk.view.LayoutExample', {
    extend: 'Ext.Panel',
    xtype: 'LayoutExample',

    config: {
        fullscreen: true,
        layout: {
            type: 'vbox',
            align: 'stretch'
        },

        /* defaults: { flex: 1 }, */

        items: [{
            xtype: 'carousel',
            direction: 'horizontal',
            flex: 1,
            items: [{
                html: 'Top A',
                style: 'background-color: #FF6666;'
            }, {
                html: 'Top B',
                style: 'background-color: #BB6666;'
            }, {
                html: 'Top C',
                style: 'background-color: #996666;'
            }
        ]
        }, {
            xtype: 'carousel',
            direction: 'vertical',
            flex: 3,
            items: [{
                html: 'Middle A',
                style: 'background-color: #66FF66;'
            }, {
                html: 'Middle B',
                style: 'background-color: #66BB66;'
            }, {
                html: 'Middle C',
                style: 'background-color: #669966;'
            }
        ]
        }, {
            html: 'This is a bottom docked text',
            docked: 'bottom'
        }
    ]
});
```



Sencha Touch

Dock Example

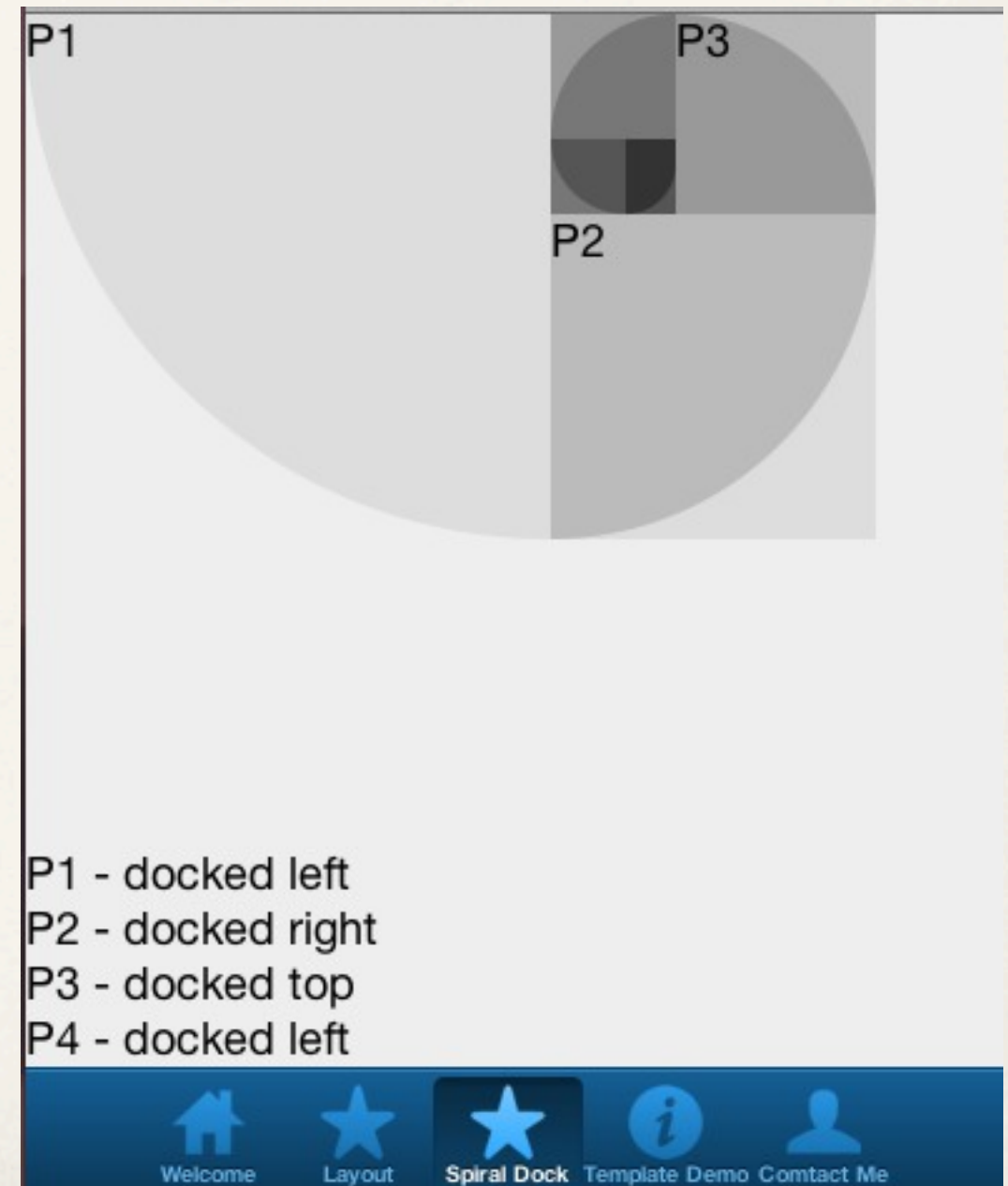
```
Ext.define('senchaTalk.view.Docking', {
    extend: 'Ext.Panel',
    xtype: 'Docking',

    config: {
        fullscreen: true,

        items: [{
            cls: 'panel1',
            width: 340,
            height: 210,
            html: 'P1',

            items: [{
                docked: 'right',
                width: 130,
                height: 210,
                cls: 'panel2',
                html: 'P2',

                items: [{
                    docked: 'top',
                    width: 130,
                    height: 80,
                    cls: 'panel3',
                    html: 'P3'
                }]
            }]
        }, {
            docked: 'bottom',
            html: [
                '<ul><li>P1 - docked left</li>',
                '<li>P2 - docked right</li>',
                '<li>P3 - docked top</li>',
                '<li>P4 - docked left</li></ul>' ].join("")
        }]
    }
});
```



Sencha Touch

XTemplates Example

```
}, {
    name: 'Kid A',
    starRating: 4.5,
    cost: '$10.09',
    thumb: 'http://www.darkbluestudios.com/transfer/proth/radiohead/kidA.jpg',
    target: 'http://www.amazon.com/Kid-A-Radiohead/dp/B00004XONN/ref=sr_1_5?ie=UTF8'
}];

var customXTemplate = new Ext.XTemplate(
    '<tpl for="{0}">',
    '<div class="record">',
    '    <h2>{name}</h2>',
    '    <p class="rating">rating: {starRating}</p>',
    '    <p class="cost">cost: {cost}</p>',
    '    //<p class="thumb"><a onclick="{this.doAlert(target)}"></a></p>',
    '    <p class="thumb"></p>',
    '</div>',
    '</tpl>',
    {
        doAlert: function( msg ){
            alert( msg );
        }
    }
);

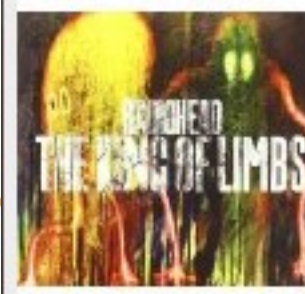
Ext.define( 'senchaTalk.view.TemplateDemo', {
    extend: 'Ext.Panel',
    xtype: 'TemplateDemo',

    config: {
        fullscreen: true,
        scrollable: true,

        /* templates can be displayed inline or separately through an activate */
        tpl: customXTemplate,

        data: records
    }
});
```

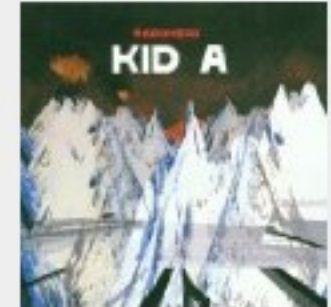
The king
of Limbs
rating: 3.5
cost: \$7.99



OK Computer
rating: 4.5
cost: \$10.00



Kid A
rating: 4.5
cost: \$10.09



Welcome



Layout



Spiral Dock



Template Demo



Contact Me

Sencha Touch

MVC Example

- View defines the inputs and the events it can dispatch
- Controller defines the refs and events to control
- View event is captured
Information specific to that view gathered
- View dispatches event
- Controller handles that event

Contact


Name	<input type="text"/>
Email	<input type="text"/>
Message	<input type="text"/>


(email is optional)


Submit


Reset


Sample Button

Welcome

Layout

Spiral Dock

Template Demo

Contact Me

Sencha Touch

MVC Example

- Model is more of a VO (value object) that specifies the fields, and attributes of a record
- Store is a collection of Model records
- The view often listens for store or model events and reacts accordingly
- Profiles are platform specific configurations

Contact

Name	<input type="text"/>
Email	<input type="text"/>
Message	<input type="text"/>

(email is optional)

Submit

Reset

Sample Button

Navigation bar: Welcome, Layout, Spiral Dock, Template Demo, **Contact Me**

ExtJS 4.0

JavaScript Framework for building rich
internet applications

Note on Comparisons

Backbone.js

MVC
framework

jQuery Mobile

Mobile layout and
functionality library

Sencha Touch

Application and
mobile framework

ExtJS 4.0

JavaScript Framework for building rich internet applications

Considerations

Licensed framework

(however, notice its free unless embedded, or creating your own SDK)

<http://www.sencha.com/products/extjs/license/>

Google maps (made simple)

Browser compatibility

- Internet Explorer 6+
- Firefox 3.6+ (PC, Mac)
- Safari 5+
- Chrome 10+
- Opera 11+ (PC, Mac)

Speed / Size / Optimization

- Command line tools available (for optimizing and minimizing and creating custom builds)
- There are different application builds available. (touch, touch-all, touch-debug, etc)

**I did not go through optimization on attached builds

Sencha Optimization Webinar

<http://vimeo.com/37636229>

ExtJS 4.0

JavaScript Framework for building rich internet applications

Side Notes on command line tools

CommandLine tools are currently beta, and you may have some quirks...

When building on a mac, you'll need to provide execute privilege on *.app/stbuild_template to install on iphones

The default icon should be "iconName":"webapp/resources/icons/Icon.png", notice its inside the 'webapp' folder in *.app

To execute the command line tools on mac, use ./command/sencha instead of ./sencha to avoid some weirdness

ExtJS 4.0

Further reading

Documentation

<http://docs.sencha.com/ext-js/4-0/>

<http://docs.sencha.com/touch/2-0/>

Ruby Compass (css compiler)

<http://compass-style.org/>

Weinre (remote debugging)

<http://phonegap.github.com/weinre/>

Sench Vimeo videos

<http://vimeo.com/search/videos/search:sencha/st/01ec0035/sort:relevant/format:thumbnail>

ExtJS 4.0

Further reading

All Code, builds and presentation
are on GitHub

<https://github.com/paulroth3d/Sencha-Talk>